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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/348,865	07/07/1999	EITAN MEDINA	MP0107	5861

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EXAMINER

ABELSON, RONALD B

ART UNIT PAPER NUMBER

2666

DATE MAILED: 12/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/348,865

Applicant(s)

MEDINA ET AL.

Examiner

Ronald Abelson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 11, 14-18, 22 and 25-28 is/are rejected.
- 7) ☒ Claim(s) 8-10, 12, 13, 19-21, 23 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Specification

1. The disclosure is objected to under 37 CFR 1.71, as being so incomprehensible as to preclude a reasonable search of the prior art by the examiner. For example, the following items are not understood: "generally full" pg. 3 lines 18 and 20, "almost full" pg. 10 lines 14 and 23, "almost empty" pg. 10 line 17 and pg. 11 line 12.

Applicant is required to submit an amendment which clarifies the disclosure so that the examiner may make a proper comparison of the invention with the prior art.

Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

A shortened statutory period for reply to this action is set to expire ONE MONTH or THIRTY DAYS, whichever is longer, from the mailing date of this letter.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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3. Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The term "generally full" (claim 1 lines 16 and 17, claim 2 lines 16 and 18) is vague.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this

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application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 4, 5, 7, 11, 14, 15, 18, 22, 25, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Ogimoto (US 6,032,205).

Regarding claims 1, 7, and 16, Ogimoto teaches a method and apparatus for a data network (fig. 12) comprising: at least one crossbar (fig. 1), wherein each crossbar comprises N ports (fig. 1); a plurality of N devices each associated with and connected to one port of one of said crossbars (fig. 1 boxes 11-14); wherein each one port of one crossbar comprises: an input buffer for receiving messages from the device connected to its port and for sending messages to the N-1 other ports of the crossbar (fig. 1 box 105); a plurality N-1 of port output buffers, each corresponding to one of said N-1 other ports, wherein each of said plurality of N-1 of port output buffers receives messages only from a corresponding input buffer corresponding to one of N-1 other ports (fig. 1 box 119-121); a plurality of N-1 of fullness sensors, each associated with one port output buffer, for measuring the fullness state of its associated port output buffer (fig. 1 box 123-125, col. 13 lines 43-49); and a shutoff means, indicating to said device connected to said one port not to send data for the port (col. 13 lines 43-49).

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Regarding claims 4, 7, 16, 17, 27, and 28, each crossbar comprises an arbiter (fig. 1 boxes 122-125) for providing messages from the output buffers pertaining to whether to send data (col. 13 lines 43-49).

Regarding claim 5, each port comprises a bus link connected to associated devices (fig. 1 see connections from input buffers (105-108) to priority circuits (114-117)).

Regarding claims 7, 17, 18, and 28, a link logic unit (fig. 1 box 101, col. 1 lines 45-46).

Regarding claims 11, 17, and 22, the device comprises one of a switch and a second crossbar (fig. 1 box 114-117, col. 20 lines 51-55).

Regarding claims 14-16, 25, 26, wherein if the device is unable to receive data, inhibit signals will be sent (col. 13 lines 43-49).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

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art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 16, 17, 27, and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Ogimoto further in view of Gillon (US 4,922,348).

Ogimoto fails to teach a direct memory access unit (DMA) for each buffer.

Gillon teaches a DMA for each buffer (fig. 2 see pairs (234 236), (254 252), (272 274), and (282 284))

Therefore it would have been obvious to one of ordinary skill in the art, having both Ogimoto and Gillon before him/her and with the teachings [a] as shown by Ogimoto, a data network comprising: at least one crossbar, wherein each crossbar comprises N ports, a plurality of N devices each associated with and connected to one port of one of said crossbars, wherein each one port of one crossbar comprises: an input buffer for receiving messages from the device connected to its port and for sending messages to the N-1 other ports of the crossbar, a plurality N-1 of port output buffers, each corresponding to one of said N-1 other ports, wherein each of said plurality of N-1 of port output buffers receives messages only from a corresponding input buffer corresponding to one of N-1 other ports, a plurality of N-1 of fullness sensors, each associated

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with one port output buffer, for measuring the fullness state of its associated port output buffer, and a shutoff means, indicating to said device connected to said one port not to send data for the port, and [b] as shown by Gillon, a DMA for each buffer, to be motivated to modify the system of Ogimoto by replacing the output buffers (fig. 1 boxes 118-121) with a DMA in combination with an output buffer. This would improve the system since a DMA allows the transferring of data without the intervention of the CPU.

The examiner takes official notice that buffers are typically FIFO.

Allowable Subject Matter

8. Claims 8-10, 12, 13, 19-21, 23, and 24 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: Regarding claims 8 and 19, nothing in the prior art of the record teaches or fairly suggests the link logic unit determines a type of message, in combination with the other limitations listed in the claim. Regarding claims 12, 13, 23, and 24, nothing in the prior art of the record teaches or fairly suggests a device table register to store a

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device number, in combination with the other limitations listed in the claim.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (703) 306-5622. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (703) 308-5463. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.


Ronald Abelson
Examiner
Art Unit 2666



December 27, 2002

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Seema S. Rao

Supervisory Patent Examiner

AU 2666

December 27, 2002

Official fax number: 703-872-9314

A handwritten signature in black ink, appearing to be 'Danton', with a stylized, cursive script.

DANTON
PATENT EXAMINER